

Date: Thursday, 26/06/2008 12:46:02 PM  
 User: Jean-Luc Menard

## Process Sheet

Customer	CU-DAR001 Dart Helicopters Services		Drawing Name	BRACKET ASSEMBLY	
Job Number	39862		Part Number	D3183043	
Estimate Number	10281		Drawing Number	D3183 REV C1	
P.O. Number			Project Number	N/A	
This Issue	26/06/2008	S.O. No.	Drawing Revision	C1	
Prsht Rev.	NC		Material		
First Issue	11	Type	MACHINED PARTS	Due Date	03/07/2008
Previous Run	39862		Qty:	10	Um: Each
Written By	<i>Jean-Luc - 06-26</i>				
Checked & Approved By					
Comment	Est Rev: Pick A 04.02.18 New issue KJ/DS Est Rev: B Changed Mat Size 08-06-26 JLM Verified By: EC				

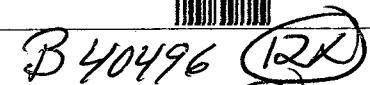
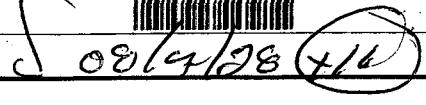
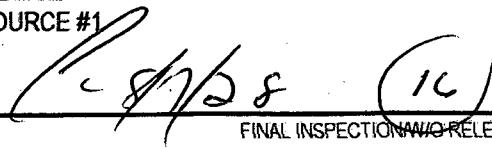
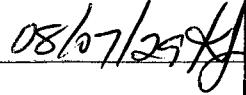
## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description:
1.0	M174B1500X02250	17-4 SS Bar 1.5"X2.250"
Comment: Qty.: 0.4812 f(s)/Unit Total : 4.8122 f(s) Material: 17-4 SS Bar per AMS 5604/5643 (M17-4-B1.500x02.25) Identify for D3183-043 Batch: M108609		
2.0	BAND SAW	BAND SAW
Comment: BAND SAW Cut blanks: (1.500" x 2.000") 5.500" long		
3.0	HAAS1	HAAS CNC VERTICAL MACHINING #1
Comment: HAAS CNC VERTICAL MACHINING #1		
1-Machine D3183-3 as per Folio FA322 and Dwg D3183 Identify as D3183-3		
2-Deburr		
3-Scribe batch number		
4.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
Comment: INSPECT PARTS AS THEY COME OFF MACHINE		

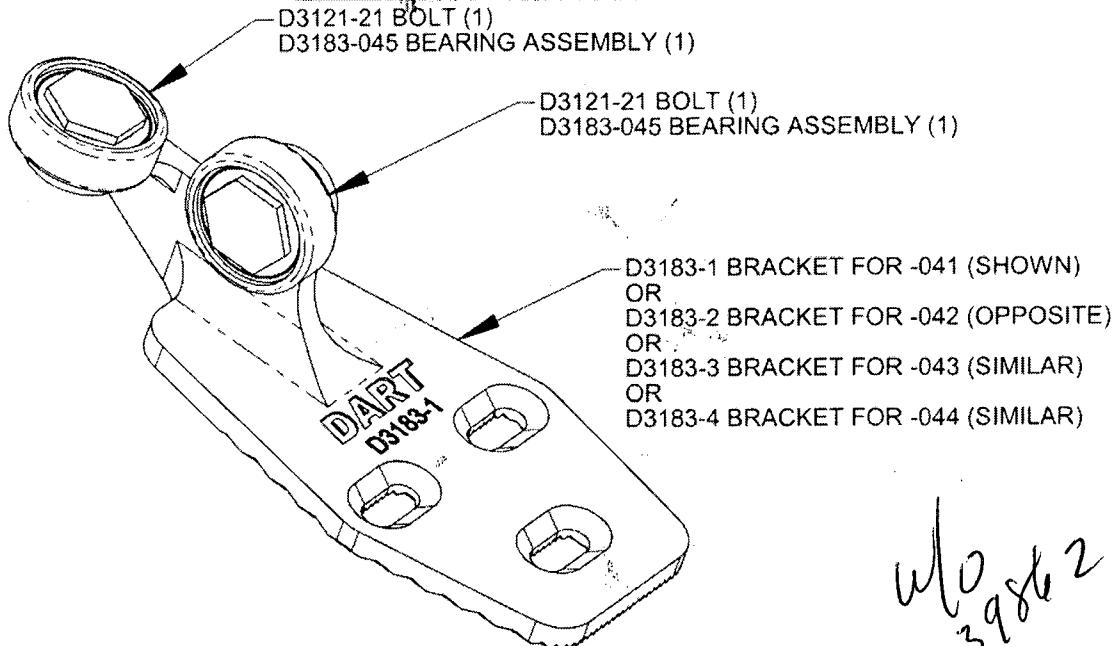
## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services		Drawing Name: BRACKET ASSEMBLY
Job Number: 39862		Part Number: D3183043
Job Number: 		
Seq. #:	Machine Or Operation:	Description :
5.0	QC8	SECOND CHECK 
Comment: SECOND CHECK		MF 08/07/16 
6.0	D312121	Bolt 
Comment: Qty.: 2.0000 Each(s)/Unit Total : 20.0000 Each(s)		EP 08/07/17 
Pick:		
Qty Part Number	Description	Batch
2 D3121-21	Bolt	339047 (1N) 
7.0	D3183045	Bearing Assembly 
Comment: Qty.: 2.0000 Each(s)/Unit Total : 20.0000 Each(s)		B 40496 (12X) 
Pick:		<del>B 40496 (12X)</del> 
Qty Part Number	Description	Batch
2 D3183-045	Bearing Ass	B39637 (20+) 
8.0	SMALL FAB 1	SMALL & MEDIUM FAB RESOURCE 1 
Comment: SMALL & MEDIUM FAB RESOURCE 1		EP 08/07/28 (16) 
Assemble D3183-043 as per Dwg D3183.		
9.0	QC5	INSPECT WORK TO CURRENT STEP 
Comment: INSPECT WORK TO CURRENT STEP		S 08/07/28 (16) 
10.0	PACKAGING 1	PACKAGING RESOURCE #1 
Comment: PACKAGING RESOURCE #1		
Identify and Stock		
Location: _____		(16) 
11.0	QC21	FINAL INSPECTION/W/O RELEASE 
Comment: FINAL INSPECTION/W/O RELEASE		08/07/28 
Job Completion 		MF 08-07-28

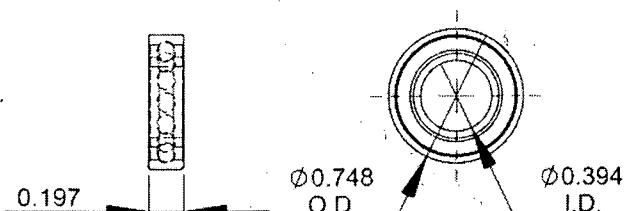
**DART**

DESIGN	DRAWN BY	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO.	REV. C
DATE	04.02.17	TITLE	SCALE

**BRACKET ASSEMBLY** 1:1

**RELEASED**  
04.02.17

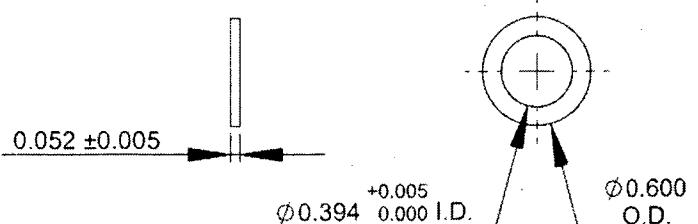
**D3183-041 BRACKET ASSEMBLY (SHOWN)**  
**D3183-042 BRACKET ASSEMBLY (OPPOSITE)**  
**D3183-043 BRACKET ASSEMBLY (SIMILAR)**  
**D3183-044 BRACKET ASSEMBLY (SIMILAR)**



**D3183-5 BEARING:  
SPECIFICATION CONTROL DRAWING**

- 1) SINGLE ROW, DEEP GROOVE, CONRAD TYPE, SHIELDED
- 2) POSSIBLE SUPPLIER: NSK P/N 6800ZZ
- 3) ALL DIMENSIONS ARE IN INCHES

**D3183-7 WASHER**



- 1) MATERIAL: AISI 303 ROUND BAR (M303R) ANNEALED
- 2) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES

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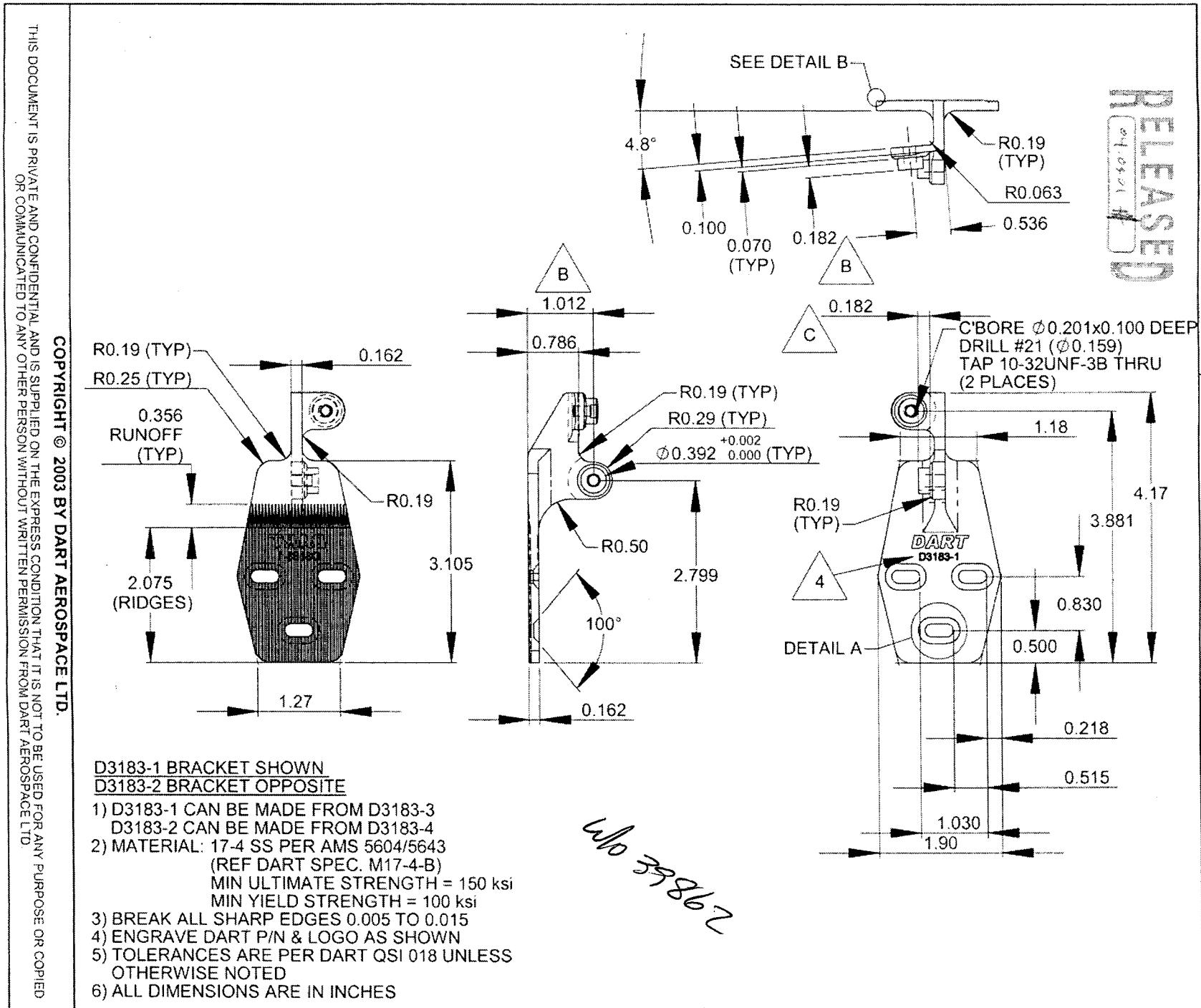
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



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CHECKED	APPROVED	REV. C	
		DRAWING NO.	D3183
DATE	04.02.17	TITLE	BRACKET ASSEMBLY
		SHEET 2 OF 4	12
		SCALE	1:2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

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D3183-3 BRACKET SHOWN  
(REPLACES BELL P/N 412-030-304-10)

**D3183-4 BRACKET OPPOSITE  
(REPLACES BELL P/N 412-030-304-106)**

1) MATERIAL: 17-4 SS PER AMS 5604/5643  
(REF DART SPEC. M17-4-B)  
MIN ULTIMATE STRENGTH = 150 ksi  
MIN YIELD STRENGTH = 100 ksi

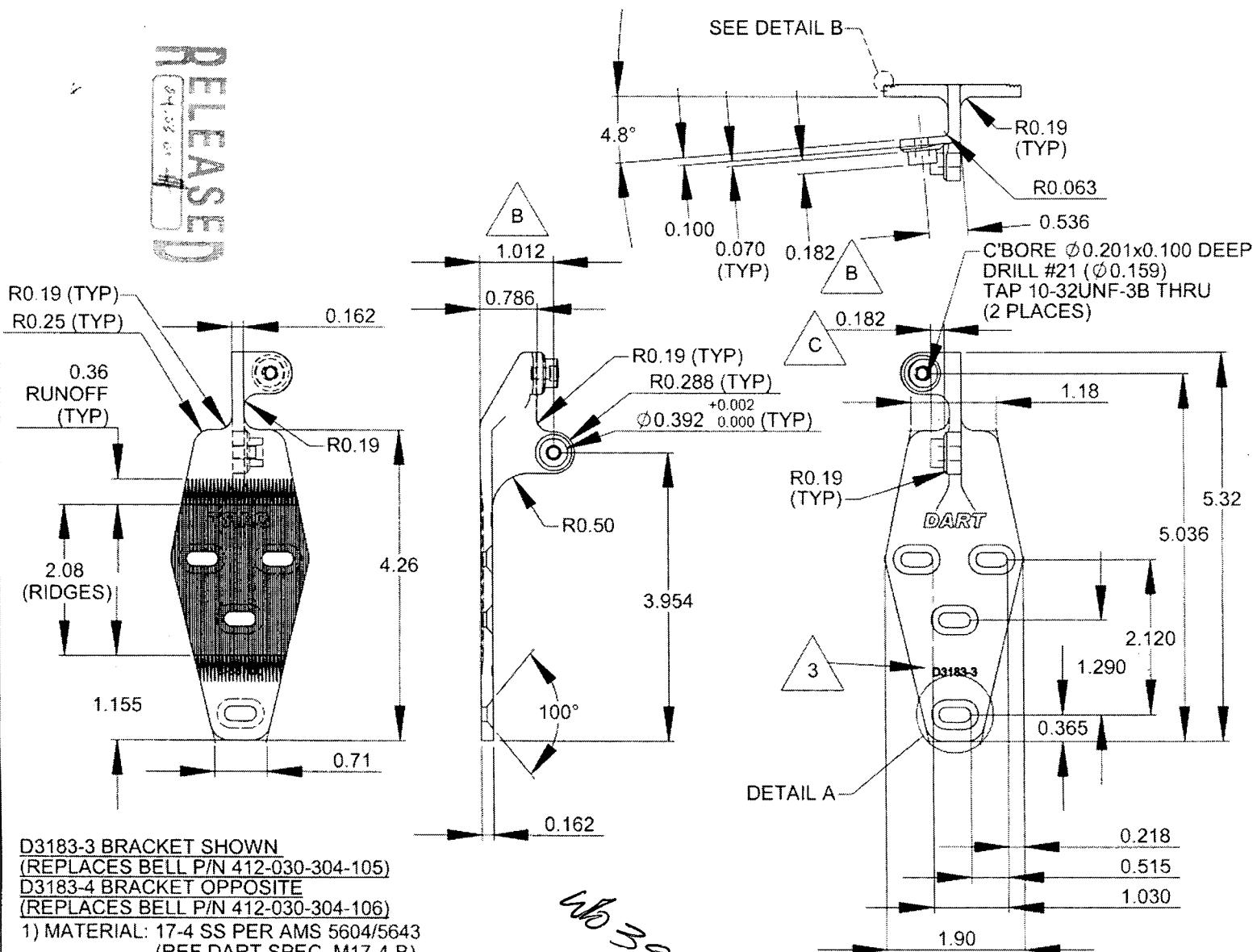
MIN YIELD STRENGTH = 100 KSI

2) BREAK ALL SHARP EDGES 0.005 TO 0.015

3) ENGRAVE DART P/N & LOGO AS SHOWN

4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

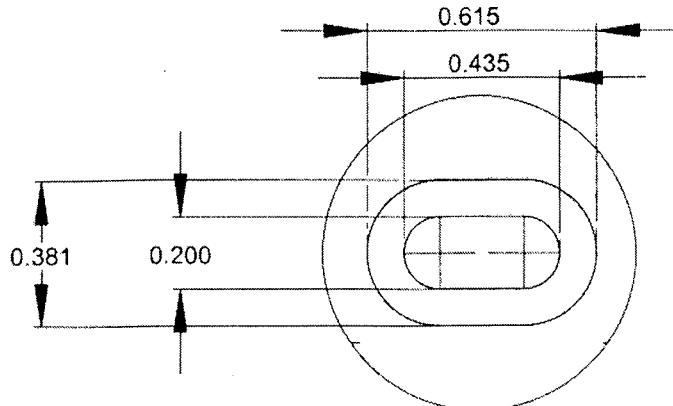
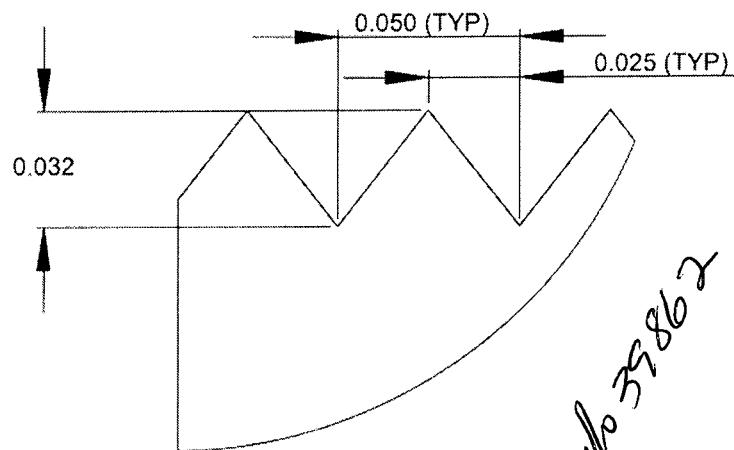
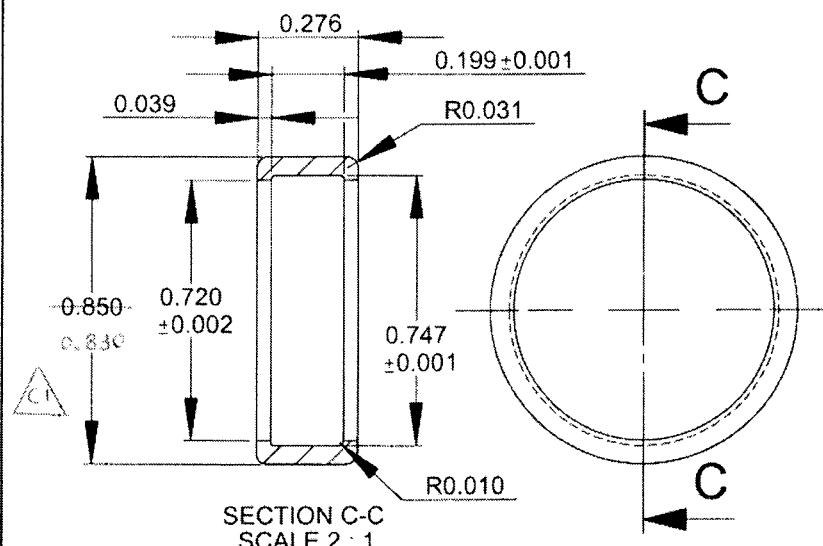
5) ALL DIMENSIONS ARE IN INCHES



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CHECKED	APPROVED	DRAWING NO.	REV. C
<i>[Signature]</i>	<i>[Signature]</i>	D3183	SHEET 3 OF 4
DATE	TITLE		SCALE
04/03/17	RACKET ASSEMBLY		1:2

**DART**

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CHECKED	APPROVED	DRAWING NO.	REV. C
		D3183	SHEET 4 OF 4
DATE	04.02.17	TITLE	SCALE
		BRACKET ASSEMBLY	

DETAIL A (2 : 1)**RELEASED**  
04.03.01DETAIL B (20 : 1)SECTION C-C  
SCALE 2 : 1**D3183-9 CAP**

- 1) MATERIAL: DELRIN ROD, Ø1.00  
(REF DART SPEC. M-DELRIN-R1.00)
- 2) TOLERANCES ARE PER DART QSI 018  
UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES

**D3183-045 BEARING ASSEMBLY**

- 1) ASSEMBLE D3183-5 BEARING AND  
D3183-9 CAP

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DART AEROSPACE LTD

Work Order: 29862

Description: Bracket

Part Number: D3183-3

Inspection Dwg: D3183

Rev: C1

Page 1 of 1

## FIRST ARTICLE INSPECTION CHECKLIST

 First Article  Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
R0.190	+/-0.030	.190	✓			
R0.063	+/-0.010	.063	✓			
0.182	+/-0.010	.184	✓			
0.070	+/-0.010	.065	✓			
0.100	+/-0.010	.104	✓			
Ø0.201 x 0.100	+/-0.010	.202	✓			
0.182	+/-0.010	.187	✓			
5.32	+/-0.030	5.310	✓			
5.036	+/-0.010	5.030	✓			
2.120	+/-0.010	2.121	✓			
1.290	+/-0.010	1.289	✓			
0.365	+/-0.010	.364	✓			
0.218	+/-0.010	.210	✓			
1.030	+/-0.010	1.035	✓			
1.90	+/-0.030	1.890	✓			
1.012	+/-0.010	1.017	✓			
Ø0.201 x 0.100	+/-0.010	.097 x .102	✓			
0.786	+/-0.010	.790	✓			
Ø0.392	+0.002/-0.000	.393	✓			
R0.19	+/-0.030	.190	✓			
3.954	+/-0.010	3.955	✓			
0.162	+/-0.010	.164	✓			
R0.19	+/-0.030	.190	✓			
R0.25	+/-0.030	.250	✓			
4.26	+/-0.030	4.270	✓			
2.080	+/-0.030	2.090	✓			
1.155	+/-0.010	1.155	✓			
0.162	+/-0.010	.170	✓			
0.36	+/-0.030	.360	✓			
0.615	+/-0.010	.621	✓			
0.435	+/-0.010	.437	✓			
0.200	+/-0.010	.207	✓			
0.381	+/-0.010	.386	✓			
0.032	+/-0.010	.033				

Measured by:	86
Date:	08/07/12

Audited by:	Chy
Date:	08/07/16

Prototype Approval:	N/A
Date:	N/A

Rev	Date	Change	Revised by	Approved
A	03.11.12	New Issue	P/O D3183-043	KJ/RF
B	04.03.15	Changes as per revision C		KJ/JLM/RF
C	06.03.09	Dwg Rev update		KJ/JLM
D	08.01.28	0.182 dimension removed		KJEC/DD

